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SUBJECT: JAPANESE LEADERSHIP PROMOTES NEXT-GENERATION

VEHICLES

REF: TOKYO 345

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11. (SBU) SUMMARY: Senior GOJ lawmakers continue to emphasize policies that support development and sale of electric and other next-generation vehicles as vital both to Japan's long-term economic growth and in order to reach CO2 reduction targets. Improving energy efficiency and reducing reliance on hydrocarbons in the transportation sector figured prominently in a mid-March 2009 meeting of the Council on Economic and Fiscal Policy (CEFP) as well as in the FY2009 budget, which passed the Diet March 27. The high-level attention suggests future economic stimulus efforts may include additional support for next-generation vehicle technology. END SUMMARY.

HIGH-LEVEL FOCUS ON NEXT-GENERATION VEHICLES

- 12. (U) Prime Minister Taro Aso stated during a March 18 CEFP meeting, which focused on measures to realize a low-carbon society, that Japan "should strive to become a nation that leads the world in such areas as solar power generation and electric cars." Several senior lawmakers, including Ministry of Economy, Trade and Industry (METI) Minister Toshihiro Nikai and Ministry of Land, Infrastructure, Transport and Tourism (MLIT) Minister Kazuyoshi Kaneko, outlined their agencies' efforts at the meeting. Senior Economic officials at the meeting also previewed for the Aso Cabinet areas the GOJ will emphasize in its next round of economic stimulus measures. Following the meeting, Economic and Fiscal Policy Minister Kaoro Yosano said steps to promote a low-carbon society, including next-generation vehicles, will be the "most important pillar" in the GOJ's long-term economic growth strategy.
- 13. (U) METI Minister Nikai told the CEFP Japan should strengthen its efforts to research and develop fuel cell and battery technologies in the face of increasing international competition, according to a transcript of the meeting. Noting that Japan has sixty percent of the world market for lithium ion batteries and ninety percent of the market for hybrid technology, Nikai stressed that Japan must continue its efforts to remain a leader in the field. Nikai also referred to the two-year old joint research project on hydrogen storage and fuel cells with Los Alamos National Laboratory and said he intends to work with U.S. Energy Secretary Chu to further areas of collaboration.
- 14. (U) MLIT Minister Kaneko observed that the transport

sector accounts for twenty percent of Japan's carbon dioxide emissions, and, when considering that households and offices account for an additional 30 percent of emissions, MLIT is responsible for developing policies related to half of Japan's carbon dioxide emissions. To this end, in addition to detailing proposals to encourage energy-efficient building design, Kaneko emphasized the development of clean vehicle technologies and more efficient transportation and distribution infrastructure. Noting that hybrid vehicles currently account for only one of every fifty new vehicles sold in Japan, Kaneko reiterated the importance of achieving the GOJ's target of next-generation vehicles accounting for half of new car sales by 2020.

15. (U) Kaneko also highlighted MLIT's support for development of an Intelligent Transport System (ITS) that would adapt existing transportation infrastructure to better accommodate next-generation vehicles, and he said Japan should strive to disperse technology such as ETC (an electronic toll collection system) and the Vehicle Information and Communication System (VICS, an electronic traffic information network) throughout Asia. Kaneko specifically noted that Japan's ETC standard has been making progress in China.

THE GOJ'S NEXT GENERATION FUEL INITIATIVE

16. (U) The centerpiece of the GOJ's program to promote eco-friendly vehicles is the Next-Generation Automobile Fuel Initiative, which METI established in May 2007 in consultation with the automotive and oil industries. The initiative channels the GOJ's priorities into five areas, specifically: (1) development of next-generation vehicle batteries, (2) development of hydrogen fuel cell technology

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and related infrastructure, (3) support of clean diesel as a higher-efficiency, clean fuel, (4) expansion of "secure, safe and fair" second-generation biofuels, and (5) capitalizing on information technology to create the "world's most friendly automobile society." Through a combination of strategies focusing on automotive technologies, fuel, and infrastructure, the program aims to reduce the transportation sector's dependence on oil by 20 percent and improve energy efficiency by 30 percent by 2030. The GOJ also includes fuel cell vehicles, hydrogen production, transport and storage, and intelligent transport systems among the 21 priority technologies included in former Prime Minister Fukuda's March 2008 "Cool Earth Innovative Technology Program".

ACTION PLAN FOR BATTERIES

17. (U) Under the Next-Generation Automobile Fuel Initiative, the GOJ's action plan for next-generation vehicle batteries consists of two distinct strategies, namely: (1) a research and development strategy to coordinate industry, government and academia efforts to meet various cost, performance, and commercialization targets; and (2) an infrastructure-building strategy aimed at developing the regulatory framework, standards, safety requirements and physical plant (e.g. battery charging stations) to support diffusion of next-generation vehicles. The near-term target (2010) is to develop an improved battery for limited-application commuter electric vehicles and high-performance hybrids that costs around 100,000 yen/kwh (one-half the FY2007 baseline cost of 200,000 yen/kwh), according to METI Manufacturing Industries Bureau Automobile Division official Ryo Maeda. By 2015, the ${\tt GOJ's}$ target is an advanced battery costing 30,000 yen/kwh (one-seventh the FY2007 baseline) with 1.5 times the performance of existing technology. METI's roadmap includes an interim target to produce a battery for use in a high-performance plug-in hybrid vehicle with three times the performance and at one-tenth the cost of the FY2007 baseline

by 2020. By 2030, METI has called for production of a battery for use in a full-scale electric vehicle with seven times the performance and one-fortieth the cost of the FY2007 baseline.

18. (U) According to Maeda, private industry itself is leading the effort to meet the 2010 target, while a collaboration between industry, academia and the GOJ is working toward the longer-term targets. Since FY2007 the GOJ has budgeted 4.6 billion yen to support R&D for advanced battery systems. (COMMENT: The FY2009 budget proposal, due to become law before April 1, includes an additional 2.6 billion yen. END COMMENT).

THE JAPAN HYDROGEN AND FUEL CELL DEMONSTRATION PROJECT

 $\P 9$. (U) The Japan Hydrogen and Fuel Cell Demonstration Project (JHFC), launched in 2002, is the GOJ's coordinated effort to commercialize fuel cell-powered vehicles. The project, currently in its second phase, targets initial commercialization of fuel-cell vehicles in 2015, with expected targets of about five million units by 2020 and 15 million units by 2030. The project, with a 990 million yen budget in FY2009, includes continued demonstration of fuel cell vehicles under actual driving circumstances; further verification of the safety and durability of hydrogen fueling stations; and a campaign to raise public awareness of the benefits of hydrogen technology, according METI Hydrogen and Fuel Cell Promotion Office Director Makoto Kawahara. The ${\tt JHFC}$ includes the participation of eight domestic and foreign vehicle manufacturers that have developed six types of fuel cell vehicles, one fuel cell bus, and one hydrogen internal combustion engine vehicle, Mazda's RX-8 RE. (NOTE: According to media reports, MLIT approved on March 5, 2009, Mazda's second hydrogen rotary engine vehicle, the Premacy Hydrogen RE Hybrid. At 200 kilometers, the new vehicle's fuel range is reportedly twice the distance of Mazda's first model with 40 percent greater engine output. Mazda will reportedly become the world's first company to commercially lease a hydrogen-gasoline hybrid vehicle with an electric battery. END NOTE.)

BUDGET AND TAX INCENTIVES

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110. (U) In FY2009, METI's total funding for the introduction and development of next-generation vehicles and fuel cells is JPY29.7 billion, including JPY5.3 billion to promote electric vehicle and plug-in hybrid technologies, quick electricity chargers, and other clean energy vehicles such as clean diesel and LPG-fueled vehicles. The GOJ is also developing various tax incentives to promote electric vehicles, including exempting hybrid and electric car purchases from the Automobile Acquisition Tax, which typically equals five percent of the cost of a vehicle (ref).

COMMENT

111. (SBU) Given the GOJ's desire to be a world leader in next-generation and fuel cell vehicles and its desire to meet CO2 reduction goals, economic policy will likely support development, sale and overseas cooperation to advance clean vehicle technology. Clean vehicle sale incentives are likely to be one component of the upcoming stimulus package, which will have the additional benefit of supporting automobile

manufactures during the current dire sales period. POST